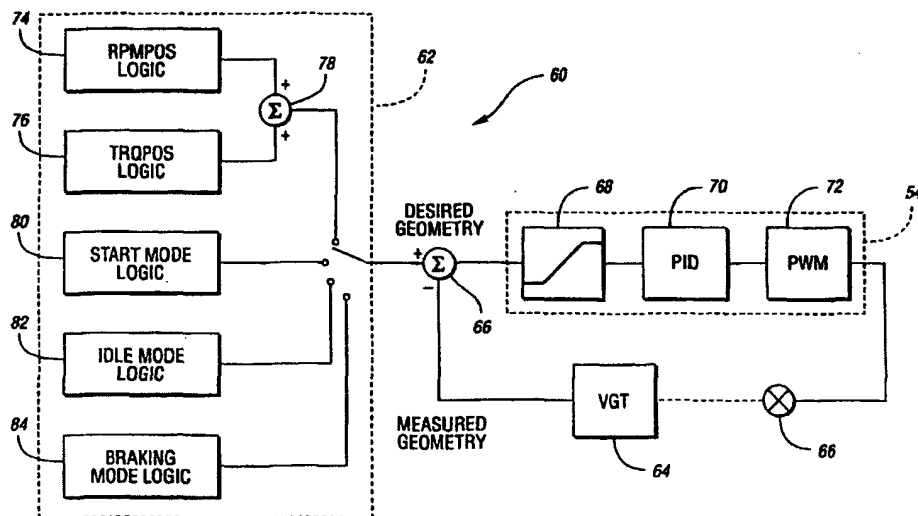




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : F02B 37/24	A1	(11) International Publication Number: WO 99/23377 (43) International Publication Date: 14 May 1999 (14.05.99)
(21) International Application Number: PCT/US98/23543 (22) International Filing Date: 4 November 1998 (04.11.98) (30) Priority Data: 08/964,343 4 November 1997 (04.11.97) US (71) Applicant: DETROIT DIESEL CORPORATION [US/US]; 13400 Outer Drive, West, Detroit, MI 48239-4001 (US). (72) Inventors: CHURCH, Peter, D.; 1853 Ashley Drive, Ypsilanti, MI 48198 (US). RIEFLIN, Christopher, M.; Apartment #302, 24609 S. Lakeview Court, Farmington Hills, MI 48335 (US). (74) Agents: BIR, David, S. et al.; Brooks & Kushman, 1000 Town Center, Twenty-Second floor, Southfield, MI 48075 (US).		(81) Designated States: AU, BR, CA, JP, MX, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report.

(54) Title: SYSTEM AND METHOD FOR CONTROLLING A VARIABLE GEOMETRY TURBOCHARGER



(57) Abstract

A system (10) for controlling a vehicle having an internal combustion engine (12), and a variable geometry turbocharger (50) includes a turbocharger sensor having an output indicative of a current turbocharger geometry. Turbocharger geometry is varied by a controllable actuator. Control logic (62) determines a desired turbocharger geometry based on the current engine conditions. Control logic determines an error signal by comparing the current turbocharger geometry to the desired turbocharger geometry. The actuator is controlled based on the error signal to change the current turbocharger geometry so as to track the desired turbocharger geometry.